

## **ABSTRACT**

Systems and methods relating to a cartridge containing a stack of rewritable optical data storage media platters and a mechanism used to store and retrieve data from the cartridge where all platters in the cartridge are used as a single data volume. The cartridge is locked to substantially preclude human access to the media platters. A cartridge door is opened by the drive mechanism when the cartridge is inserted. An extraction assembly may extract one or more platters from the cartridge for loading into the drive mechanism. An elevator assembly may vertically align the drive mechanism with the extracted platters. Where multiple platters are selected, the drive mechanism may include multiple read/write assemblies to simultaneously read or write from multiple platters. Where multiple platters are used, striping techniques may be applied to enhance data bandwidth performance. Additional error-checking and/or redundancy information may be written to the platters to enhance reliability.